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MDA

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/466,832

12/20/99

ISHIKAWA

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F7443-9012

MM2/0314
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EXAMINER

MARTIR, L

ART UNIT

PAPER NUMBER

2855

DATE MAILED: 03/14/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

Office Action Summary

Application No.

09/466,832

Applicant(s)

ISHIKAWA, ATSUSHI

Examiner

Lilybett Martir

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10-13 are rejected under 35 U.S.C.112 , second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 10-13 the terms “the injection molding machine” are not positively recited.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Hiraoka (Pat. 5,371,450). Hiraoka teaches all aspects of the disclosed apparatus and method of using the same as follows:

- A first sensor 25 (Claim 1) to detect a relative position between a movable platen and a fixed platen, a second sensor 18 to detect a mold clamping force, a target value generator 24 that generates a target value between the

(24-2)
(6-12)

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- movable platen and the fixed platen, and a mold clamping control unit for calculating (Col. 12, lines 40-46) a position deviation and a mold clamping deviation to selectively control a mold clamping motor based upon one of the position deviation and the mold clamping deviation.
- A subtracting unit 24-3 and 24-5 (Claim 2) for subtracting the detected platen position (Col. 4-5, lines 66-1) and the detected mold clamping force (Col. 5, lines 13-15) to produce position deviation and the mold clamping deviation values, a switch 51 used to selectively produce the position deviation and the mold clamping deviation, and a generating unit 24 that generates control command values for the mold clamping motor 11 to the selected deviation.
 - A first subtractor 24-3 (Claims 3 and 4) for subtracting the detected platen position, a second subtractor 24-5 for subtracting the detected mold clamping force, a platen position compensation unit 24-4, a mold clamping force compensation unit 30-2, and a switch 51 to selectively supply and produce the command and deviation values.
 - A target value switch 51 (Claim 5), a detected value switch 51, a subtractor 30-1, a platen position (Col. 4-5, lines 66-1) and a mold clamping force compensation unit 30-2.
 - A platen position (Claims 6,7,8 and 9) as noted in Col. 4-5, lines 66-1, with first and second control command values (Fig. 3) and a motor control unit 50 for drivingly controlling a motor 11.

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- A platen position (Claims 10,11,12 and 13), as noted in Col. 4-, lines 66-1, with first and second control command values (Fig. 3), an injection molding machine (Fig. 1) with a screw 12 for injecting molten resin, and a control device 50 for drivingly controlling a motor 11.
- The method of controlling the mold clamping control device (Claims 14-26) exist as an essential constituent or characteristic of the invention and therefore is inherent.

Citation of Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art considered pertinent during examination of the examined application is:

- Hiraoka (Pat. 5,844,391) Device for controlling the clamping force of a motor-driven injection molding machine.
- Abler (Pat. 5,711,976) Cheese molding apparatus.
- Seki (Pat. 6,013,211) Method and apparatus for controlling mold clamping force based on detected hydraulic pressures.
- Holowko (Pat. 6,081,820) Method and apparatus for filtering a signal using a window value.
- Kato et al. (Pat. 4,832,883) Method and apparatus for controlling screw positions in injection molding machine.

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- Katsuta et al. (Pat. 5,885,624) Apparatus for controlling injection molding machines.
- Cardenas-Franco (Pat. 4,108,623) Electronic control system for glassware and other thermoplastic articles forming machines.
- Stegmaier (Pat. 5,902,611) Injection molding machine and method with integrated carriage assembly.
- Keitel et al. (Pat. 5,348,463) Injection unit having a settable nozzle contact pressure.
- Jung (Pat. 4,195,048) Compensation for differing heights of different molds clamped between the mold-clamping plates of an injection-molding machine.
- Kamiguchi et al. (Pat. 5,154,935) Injection pressure control apparatus for an electrically-operated injection molding machine.
- Hillman et al. (Pat. 5,470,218) Graphical interface driven injection blow molding apparatus.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lilybett Martir whose telephone number is (703)305-6900. The examiner can normally be reached on 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin Fuller can be reached on (703)308-0079. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3432 for regular communications and (703)305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.



Lilybett Martir
Examiner
Art Unit 2855

Lm

February 28, 2001

